Pioneer

seeing and hearing like never before

BDP-09FD

ELITE® REFERENCE BLU-RAY DISC® PLAYER

Pioneer
PURE AUDIO
RESOLUTION
1080/24P
PURE AUDIO
STANDBY/ON
ELITE

the promise of video disc, delivered.

Experience movies and music like you have never experienced them before. Only one component reproduces the purest signal, the most impeccable image, and pours the most realistic sound into your room. It delivers home entertainment that was impossible until now. Introducing the Pioneer Elite® BDP-09FD Reference Blu-ray Disc® Player. Watch it, hear it, and you will never be the same.

UNRIVALED PICTURE QUALITY

Explore the finest video technology ever built into a Blu-ray Disc® player.

For nearly three decades, Pioneer has been at the forefront of video disc technology, beginning in 1980 with our first LaserDisc player, the revolutionary VP-1000. Pioneer's goal to innovate has consistently advanced the state of the video art, and now, the BDP-09FD represents our finest achievement to date.

At the core of the BDP-09FD's video circuitry are three integrated circuits: two large-scale integrated (LSI) video processing chips and an advanced video processing chip from Marvell®.

The extraordinary power of the two video LSIs makes possible Pioneer's Picture Control Suite, a comprehensive menu of fine-tuning adjustments. Instead of only a single noise-reduction adjustment, the BDP-09FD provides four. And, Pioneer's Video Adjust mode optimizes the video signal to various video displays.

Furthermore, the BDP-09FD facilitates 16-bit video processing—and the upconversion of 8-bit video to 16 bits. While 8-bit digital video reproduces a maximum of 256 hues per color, Pioneer's 16-bit processing allows a maximum of 65,536 hues per color.

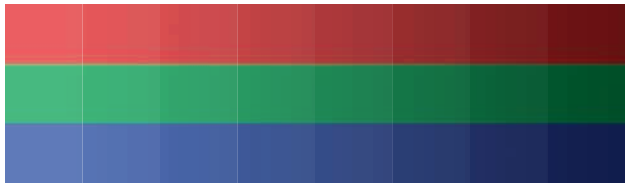
All of these features contribute to video performance that is simply unequaled by other players.

Pioneer's First LaserDisc Player

Although VCRs were becoming popular in 1980, Pioneer realized the inherent weaknesses in video tape technology. The VP-1000, Pioneer's first LaserDisc player, delivered a much sharper image, and the discs did not wear out as video tapes did.

Picture Control Suite

The power of the BDP-09FD's video processing chips allows fine control of numerous picture parameters, including black and white levels, gamma, chroma level and hue, and four noise reduction adjustments. These settings may be stored in the player's internal memory.

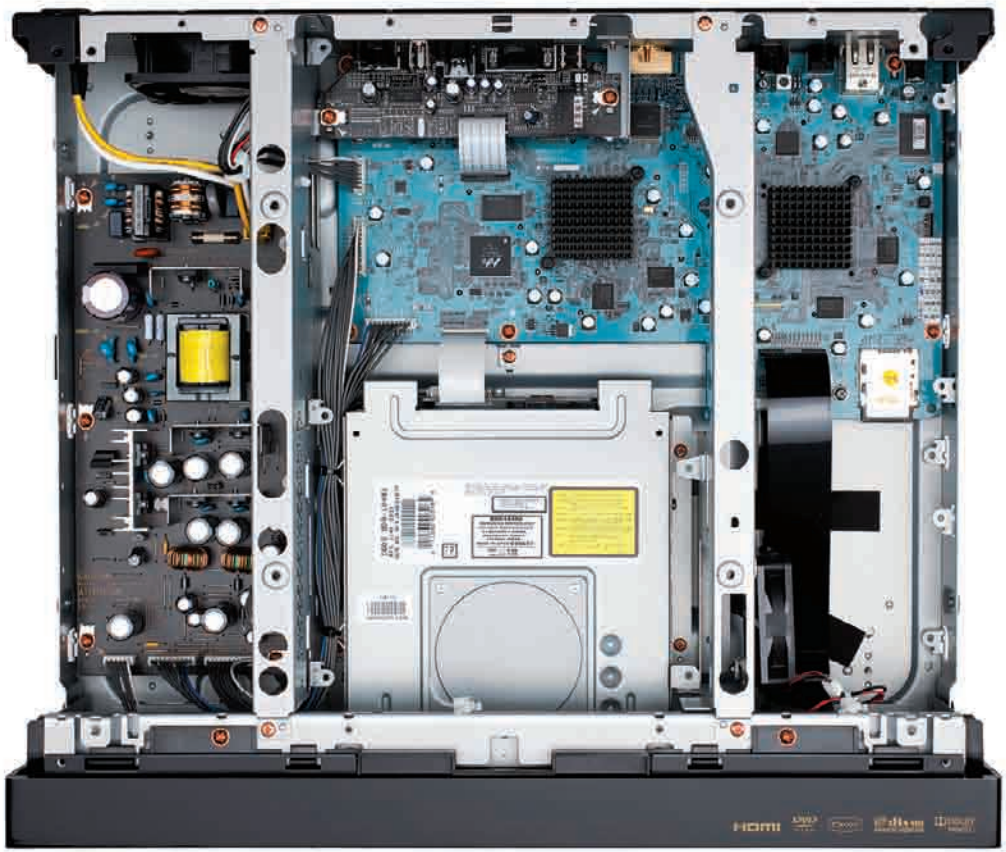


Original 8-Bit BD Video Color Signal

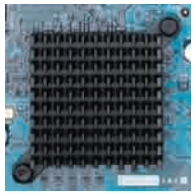
8-Bit to 16-Bit Adaptive Video Processing

16-Bit Adaptive Expansion

The BDP-09FD expands standard 8-bit digital video color signals from Blu-ray Discs to 16-bit lengths. This expansion delivers smoother gradients than conventional 10- or 12-bit processing can. The progression from shadow to light greatly minimizes banding artifacts.



The BDP-09FD is built with the same attention to detail on the inside as it is on the outside.



Video Processing LSIs

To provide the video processing power the BDP-09FD needed, Pioneer employed two large-scale integration (LSI) video chips, one produced by Pioneer, and another developed by Pioneer in conjunction with chipmaker Renesas® Technology.

Marvell® QDEO™ Video Processor

To improve video quality from both Blu-ray Discs and standard DVDs, Pioneer chose the advanced video processor from Marvell. This chip is renowned for the crisp, noise-free, and artifact-free video images it produces.

Triple HD Digital Noise Reduction

The BDP-09FD features three types of noise reduction. Component-frame noise reduction minimizes rough texture noise, as is often seen in shots of sky and blank walls. Block noise reduction addresses the blockiness that can occur in dark parts of a picture. Mosquito noise reduction diminishes the fuzzy distortion that can appear around object edges.

x.v.Color

X.V.Color—also known as xvYCC—broadens the gamut of available colors. It allows for the reproduction of 80 percent more colors than previous video technologies, delivering deeper reds, greens, and blues than ever before possible.

Pure Cinema I/P Conversion

Most movies originate as film at 24 frames per second. While Blu-ray Disc players can output this signal, many TVs cannot accept it. Pure Cinema I/P Conversion ensures that the 24 fps signal is converted to 60 fps while retaining smooth motion.

Video Presets Mode

The BDP-09FD's Video Presets Mode provides five settings that optimize the image to suit the performance characteristics of different video display types, including plasmas, LCDs, projectors, and professional displays.

Dual HDMI® 1.3A Outputs

The BDP-09FD is the first Blu-ray Disc player with two HDMI outputs. Dual outputs allow the player to drive two video displays without the loss of quality that might result from using a distribution amplifier. The outputs can also be used to separate the audio and video signals.

48-Bit Deep Color Support

Deep Color technology allows for the reproduction of a wider range of hues and shades. The minimum Deep Color specification requires a bit depth of 30 bits, resulting in a maximum of about 1 billion different possible colors. The BDP-09FD's 48-bit depth allows for the possibility to display more than 281 trillion different colors.

AUDIOPHILE-QUALITY SOUND

The performance of an ultra-high-end CD player—in a home theater component.

Even an incredible picture cannot convey the emotion of movies and music unless the audio performance is equally outstanding. That's why the audio section of the BDP-09FD employs the same basic circuit topology found in some of the most expensive CD players.

Each of the BDP-09FD's 7.1 channels is equipped with its own digital-to-analog converter operating in dual-mode, and channel levels may be calibrated on screen with 0.5-dB precision.

A dedicated analog audio power supply prevents noise contamination, while a toroidal transformer minimizes stray magnetic energy. And only custom-made precision capacitors match the tight tolerances specified by Pioneer's engineers.

An exceptionally rigid chassis and center-mounted drive mechanism minimize the jitter that degrades digital audio signals. When used with a Pioneer audio/video receiver equipped with our Precision Quartz Lock System, the BDP-09FD reduces jitter for the cleanest possible sound.

And, the BDP-09FD decodes major surround-sound formats*, bringing you closer—bit for bit—to the sound heard in the studio.

These advanced features produce sound quality that equals or exceeds that of the finest audiophile CD players previously available—and rises far above that of typical home theater audio components.

*Initial production BDP-09FD Blu-ray Disc® players will require a firmware update in order to decode DTS-HD Master Audio

SC-09TX 10.2 Channel Flagship A/V Receiver

The incredible sound quality of the BDP-09FD is shared with Pioneer's flagship A/V receiver, the SC-09TX. Together, they make the ultimate statement when it comes to audiophile sound.

Precise On-Screen Calibration

Most Blu-ray Disc and DVD players with multi-channel outputs offer channel-level adjustments in coarse 1-dB steps. The BDP-09FD's channel levels may be adjusted with 0.5-dB precision, assuring accurate calibration and the most realistic surround-sound effect currently available.

Eight Wolfson® Microcelectronics Digital-to-Analog Converters

To maximize audio fidelity, Pioneer used a separate stereo digital-to-analog converter for each of the BDP-09FD's 7.1 channels. Each 24-bit/192-kilohertz DAC runs in differential mode to cancel noise and interference, and helps the BDP-09FD achieve its impressive 120-decibel signal-to-noise ratio.

State-Of-The-Art Audio Decoding

The BDP-09FD decodes all audio formats currently used for Blu-ray Disc and DVD, including DTS-HD® Master Audio*, Dolby® True HD, DTS-HD High Resolution Audio, and Dolby Digital Plus. These may be heard through the player's analog outputs, decoded in the player and sent out as uncompressed PCM audio, or sent out for decoding in an audio/video receiver or surround-sound processor.

Toroidal Transformer

Power-supply transformers create powerful magnetic fields that can affect the operation and performance of audio circuitry. The BDP-09FD's round toroidal transformer—the same type used in almost all high-end stereo equipment—produces a tighter, more contained magnetic field than a typical EI-type transformer.

PQLS Jitter-Free Audio Transmission

Pioneer's Precision Quartz Lock System (PQLS) reclocks HDMI digital audio for jitter-free performance when the BDP-09FD is used in conjunction with a PQLS-equipped Pioneer audio/video receiver. PQLS produces clearer transients, more realistic ambience, and deeper silence.

Custom Capacitors

Off-the-shelf power-supply capacitors sometimes vary as much as 50 percent from their stated value. Pioneer created tight-tolerance, custom capacitors designed for low internal resistance and inductance, to ensure that the power supply delivers its specified performance.

Dedicated Analog Audio Power Supply

The rapid on/off nature of digital circuitry can cause high-frequency fluctuations in a power supply—fluctuations that can impair sound if the analog audio circuitry is powered by the same supply. The BDP-09FD uses a separate power supply for analog audio to prevent such contamination.

ADVANCED BUILD QUALITY

To achieve the world's best video and audio performance, we built the world's most robust Blu-ray Disc® player.

Engineers recognize that the build quality—and mass—of an optical disc player is crucial to its sound. The weight of the BDP-09FD exceeds 30 pounds, more than three times that of a typical Blu-ray Disc player. Rigid aluminum sides and front are attached to a solid steel bottom plate. A double-layer aluminum top adds rigidity, as do internal steel crossbar supports.

Pioneer joins these parts using copper screws, which provide a better ground connection than steel screws.

Mounting the disc transport below the player's center of gravity makes it less affected by external vibration—and those it generates on its own are reduced, allowing the laser to read the disc better.

Heavy, inert carbon-composite insulator feet further reduce external vibration.

To minimize electrical interference, Pioneer created four separate chambers within the chassis. Video and audio boards are isolated, and power supplies and the disc transport mechanism reside within their own enclosures, so their operation does not affect the audio and video circuitry.

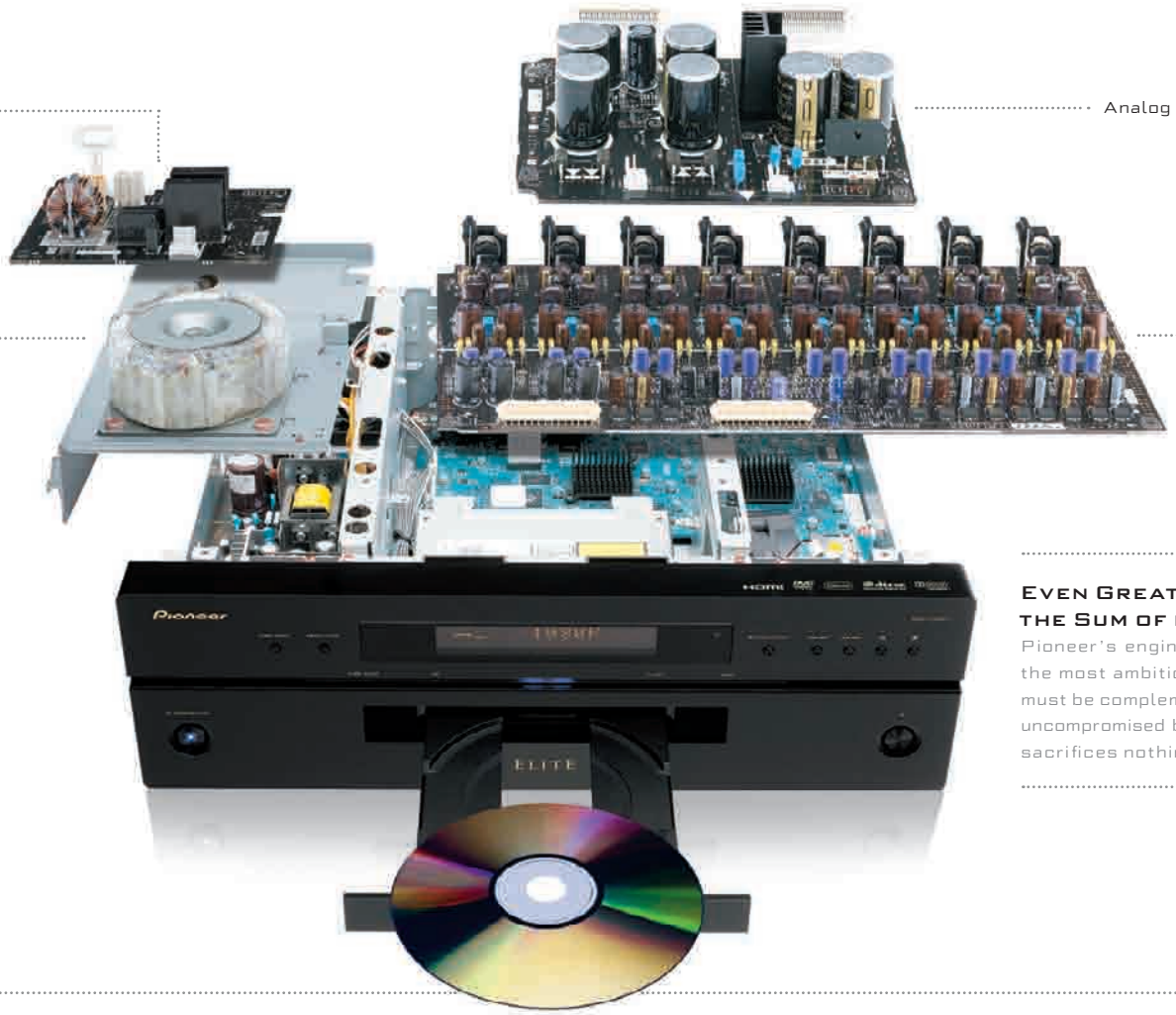
This meticulous—and expensive—construction ensures that the BDP-09FD's state-of-the-art video and audio circuitries can do their job, undisturbed by other circuits and mechanisms or by any external influences.

Steel Bottom Plate

A solid steel bottom plate provides a firm mounting for the BDP-09FD's rigid extruded-aluminum sides. It also provides additional mass that helps damp internal vibration and minimize the effect of external vibration. Additionally, three insulator feet provide greater stability than the typical four-foot configuration found in conventional designs.

TAOC Insulator Feet

External vibration can negatively affect disc transport mechanisms and electronic circuitry. Pioneer chose to isolate the BDP-09FD from external vibration through the use of carbon-composite insulator feet made by TAOC, an accessory brand revered by audiophiles around the world.



Even Greater than the Sum of its Parts

Pioneer's engineers know that in order for the most ambitious design to be realized, it must be complemented by superior parts and uncompromised build quality. The BDP-09FD sacrifices nothing, so neither do you.

Four-Chamber Aluminum Chassis

The physical architecture of the BDP-09FD incorporates four chambers that separate major parts of the unit form one another, eliminating electrical interference encountered in lesser designs. Audio circuit boards are isolated from video circuit boards, and vice versa. Power supplies are removed from delicate audio and video circuitry, while the disc transport is similarly isolated from other electrical and mechanical assemblies.

Copper Screws

The screws that hold an electronic component together serve more than a mechanical purpose—they also function as conductors for ground signals. Pioneer chose copper screws for the BDP-09FD because their electrical conductivity is approximately 10 times that of typical steel screws.

Low Center Load Drive

The Blu-ray Disc recorder transport—the most precise such mechanism available—is mounted in the center of the BDP-09FD's frame, low in the chassis. This position helps damp internal vibrations, and also lessens the effect of external vibrations. Both of these benefits assure that errors in reading information from a disc will be negligible or non-existent.

Gold Plated Connectors

Pioneer's engineers rely on gold to establish the most reliable electron transfer between connector and cable. Offering superior conductivity, gold is simply the best connector solution when it comes to preserving delicate audio and video information. That is why the BDP-09FD's rear panel employs only gold-plated RCA and BNC video connectors.

UNSURPASSED CONVENIENCE

Thoughtful features make the BDP-09FD easy to install and a pleasure to use.

Serious home theater enthusiasts demand more than performance. They also insist that equipment be loaded with features, be compatible with other system components, and be easy to operate and install.

The BDP-09FD is BD-Live™ Ready* and Profile 2.0 compatible. It has four gigabytes of internal memory, while a rear-panel Ethernet jack makes firmware updates simple.

On-screen displays allow access to numerous features. Conduct searches by time, title, or chapter to locate any part of a movie. Video and audio bit-rate meters display in real-time the level of quality the producers chose for each disc.

And the BDP-09FD is easy to use. Pioneer's KURO™ link technology allows synchronization with other Pioneer components connected through HDMI®, so you can power up an entire system with a single remote button. It can also be used with home automation touchscreens from AMX®, Crestron®, Control4® and others.

Every convenience is included on the BDP-09FD, whether it is used in a customer-built system or in a custom-installed home theater.

BD-Live Ready*

BD-Live offers an incredible interactive experience unlike traditional DVDs. Have fun with live chat, synchronized viewing with other BD-Live players, online gaming, and video messaging. The possibilities are endless.

*Initial production BDP-09FD Blu-ray Disc players will require a firmware update in order to access BD-Live features.

Wall-E: Now available on Disney DVD and Blu-ray™ Hi-Def® Disney-Pixar

Audio and Video Bit-Rate Meters

Separate bit-rate meters for audio and video may be displayed on-screen during playback of Blu-ray Discs and DVDs.

Dual HDMI® Outputs

The BDP-09FD's dual HDMI outputs can deliver separate audio and video feeds, or parallel audio/video feeds to two different video monitors.

BNC Video Connectors

Professional, gold-plated BNC video connectors ensure maximum performance and a more secure connection for component video cables.

Ethernet Jack

An RJ-45 Ethernet connector allows the BDP-09FD to access BD-Live content from the Internet*, and permits easy updating of player firmware.

RS-232C Connector

A DB-9 RS-232C interface allows connection of external control systems such as home automation touchscreens—essential for custom installation.

Pioneer's commitment to building the finest Blu-ray Disc® player is the same commitment shared with every piece of Elite® equipment.

bringing it all home

From our KURO™ Signature Series monitors and KURO flat panel televisions, to our SC Series A/V receivers and unmatched EX Series loudspeakers, the sights and sounds delivered by a complete Pioneer Elite home entertainment system are unrivaled by any other. And there is no company more committed than Pioneer to opening your eyes and ears like they've never been opened before.

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BDP-09FD

Elite® Reference Blu-ray Disc® Player

PERFORMANCE FEATURES

HDMI® 1.3a Output
- Dolby® TrueHD and DTS-HD® Bit-stream Out
- 48-Bit Deep Color Support
- X.V. Color
- AVC-HD

1080p True 24FPS Video Output (BD/DVD)

Original Pioneer-developed 16-Bit Video Processing LSI
- 15 Different Video Adjustments

4 Different Noise Reduction Circuits

Internal Audio Decoders
- Dolby TrueHD and Dolby Digital Plus
- DTS-HD Master Audio*
- DTS-HD High Resolution Audio

12-bit 297 MHz Video Encoder

7.1 Channel Analog Audio Outputs

BD-Live™ Ready* with 4GB Internal Memory

Coaxial Frequency Response Improvement

PQLS Jitter Free Audio Transmission

CONVENIENCE FEATURES

Advanced Bit Rate Meters

Advanced Playback and Search Modes

Dual HDMI® Outputs

Locking Component Video Connectors

RS-232C Control for Custom Installation

AUDIO FEATURES

Dedicated Analog Audio Power Supply
- Eliminates unwanted interference caused by shared power supply
- Custom made capacitors deliver performance not possible with off-the-shelf components

Toroidal Transformer
- Limits stray magnetic fields for superior audio reproduction due to lower amounts of electrical noise

8 Wolfson® Audio DACS
- Dual mode configuration for superior signal-to-noise ratio (120db) and uncompromised transparency

AUDIOPHILE CONSTRUCTION

Body Construction
- Aluminum Panel (Front/Top/Side)
- Steel Cross Bar Supports
- Double Layer Top Panel
- Solid Steel Bottom Plate
- Low Center Load Drive
- TAOC Insulator Feet
- Four-Chamber Construction

Internal Construction
- Separate Analog Audio Board
- Separate Analog Power Supply
- Separate Digital Power Supply
- Toroidal Transformer
- Separate Video Board
- Pioneer Developed Parts

TERMINALS

HDMI 1.3a Output (x2 Main and Sub)

Component Video Output†

Composite Video Output†

S-Video Output†

7.1-Channel Audio Output†

2-Channel Audio Output

Coaxial Digital Output

Optical Digital Output

Control In

RS-232C Control

†Gold Plated

SPECIFICATIONS

Power Requirements: 120V/60Hz

Weight: 30.42 lbs.

Dimensions (W x H x D): 16.54" x 5.63" x 14.17"

INTEGRATED TECHNOLOGIES

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